

REMARKS

Reconsideration of this application and allowance of the claims is respectfully requested.

In the previous office action, the examiner stated that claim 30 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior to this amendment, there was no claim 30 in the case, but the last claim to be added, claim 29, was added to the case by the amendment of August 15, 2003. Claim 17 now carries the limitations of claim 29.

It is believed that this is the claim referred to by the examiner as being allowable, since claims 22-28 stood cancelled in that same amendment, so claim 29 is the only candidate.


Also, claim 17 has been amended to delete "Teflon" and to replace it with "fluoropolymer resin," for better usage of the Trademark "Teflon". A DuPont website printout is enclosed, describing Teflon as a trademark, and defining it as a fluoropolymer resin on page 1, first paragraph.

As such, it is believed that amended claim 17 is now allowable. Accordingly, claims 18-21 and 30, which are dependent upon claim 17, should also be allowable.

In view of the above, allowance of claims 17-21 and 30 is requested.

Respectfully submitted,

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December 16, 2004
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Mail Stop: AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 16, 2004.



Registered Attorney for Applicant
Date: December 16, 2004



Teflon® NXT



Modified Granular Molding Resin

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Teflon® NXT 70 Modified PTFE Granular Molding Resin

Description

Teflon® NXT 70 is a chemically modified polytetra-fluoroethylene polymer.

When properly processed, Teflon® NXT 70 exhibits the superior properties typical of the fluoropolymer resins: nonaging characteristics, chemical inertness, heat resistance, toughness and flexibility, low coefficient of friction, nonstick characteristics, negligible moisture absorption, and weather resistance. Refer to the physical properties table. In addition, this resin offers weldability, improved resistance to deformation under load, increased resistance to permeation of chemicals, and a higher dielectric breakdown voltage. This grade exhibits minimal sagging (typical of modified PTFE) in billets as large as 350 kg (800 lb). Refer to the comparative permeation rates table.

Typical End Products

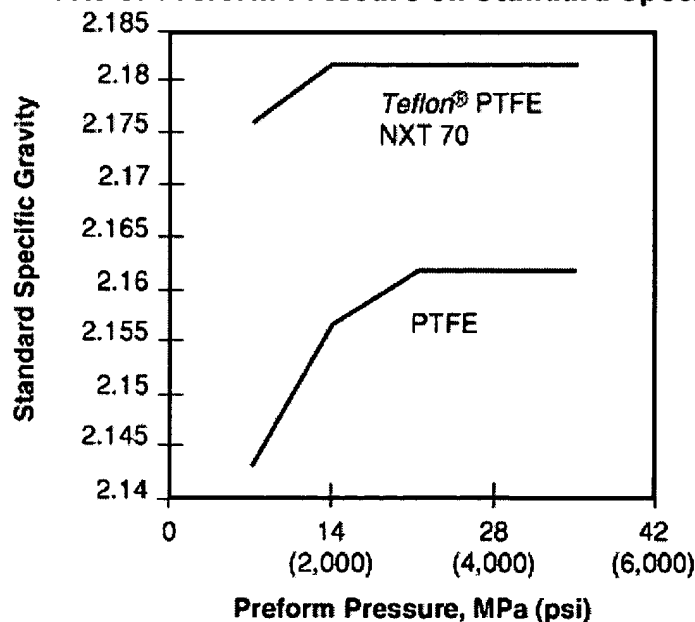
Teflon® NXT 70 is a fine-cut resin designed for compression molding of blocks and sheets and for use as a base resin for compounds. It can be used for such applications as: seal rings, valve seats, bearing pads, linings, encapsulations, and as a base resin for filled compounds.

FDA Compliance

Properly processed products (sintered at high temperatures common to the industry) made from Teflon® NXT 70 resin can qualify for use in contact with food in compliance with FDA regulation 21 CFR 177.1550.

Processing

Effects of Preform Pressure on Standard Specific Gravity



Teflon® NXT 70 may be converted by compression molding techniques. For instance, a preform is made at room temperature at the recommended pressure of 14 MPa (2,000 psi) and subsequently free sintered.

Of particular significance for sheet molding is the fact that maximum density after sintering is reached at lower pressures when compared with nonmodified granulars as shown in the chart to the right. This allows the production of larger sheets with existing equipment.

Safety Precautions

WARNING!

VAPORS CAN BE LIBERATED THAT MAY BE HAZARDOUS IF INHALED.

Before using Teflon®, read the Material Safety Data Sheet and the detailed information in the "Guide to the Safe Handling of Fluoropolymer Resins, Latest Edition," published by the Fluoropolymers Division of The Society of the Plastics Industry—available from DuPont.

Open and use containers only in well-ventilated areas using local exhaust ventilation (LEV). Vapors and fumes liberated during hot processing, or from smoking tobacco or cigarettes contaminated with Teflon® NXT 70, may cause flu-like symptoms (chills, fever, sore throat) that may not occur until several hours after exposure and that typically pass within about 36 to 48 hours. Vapors and fumes liberated during hot processing should be exhausted completely from the work area; contamination of tobacco with polymers should be avoided. Mixtures with some finely divided metals, such as magnesium or aluminum, can be flammable or explosive under some conditions.

Storage and Handling

Preforming is easiest when the resin is uniformly between 21–27°C (70–80°F). As temperature declines below this range, the resin will be increasingly difficult to mold without cracks and problems with condensed moisture. Higher temperatures inhibit flow and promote lumping. Storage conditions should be set accordingly.

Cleanliness is a critical requirement for successful use of Teflon® NXT 70. The white resin and high sintering temperatures cause even very small foreign particles to become visible in finished moldings. Keep resin drums closed and clean. Good housekeeping and careful handling are essential.

Freight Classification

Teflon® NXT 70, when shipped by rail or express, is classified "Plastics, Synthetic, O.T.L., NOIBN." Resin shipped by truck is classified "Plastics, Materials Granules."

Packaging

Teflon® NXT 70 is packaged in 45-kg (100-lb) drums. Each drum has a bag liner made of polyethylene resin.

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Teflon® Home

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